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ABSTRACT

Regulations and standards relative to air quality control in Colorado are defined in this publication. Presented first are definitions of terms, a statement of intent, and general provisions applicable to all emission control regulations adopted by the Colorado Air Pollution Control Commission. Following this, three regulations are enumerated: (1) Emission Control Regulations for Particulates (fuel-burning equipment, refuse-burning equipment, manufacturing processes, and fugitive dust), Smoke (stationary air contamination sources, transportation sources, and open burning), and Sulfur Oxides (ground level concentrations, source emission concentrations, method of measurement, and related compounds containing sulfur in oxidized states); (2) Odor Emission Regulations; and (3) Regulations Governing Authority to Construct and Permit to Operate (air contamination sources). In addition, ambient air standards for the metropolitan Denver air quality control region, air quality control areas, and the State of Colorado, concerning suspended particulate matter and sulfur dioxide, are listed. (BL)

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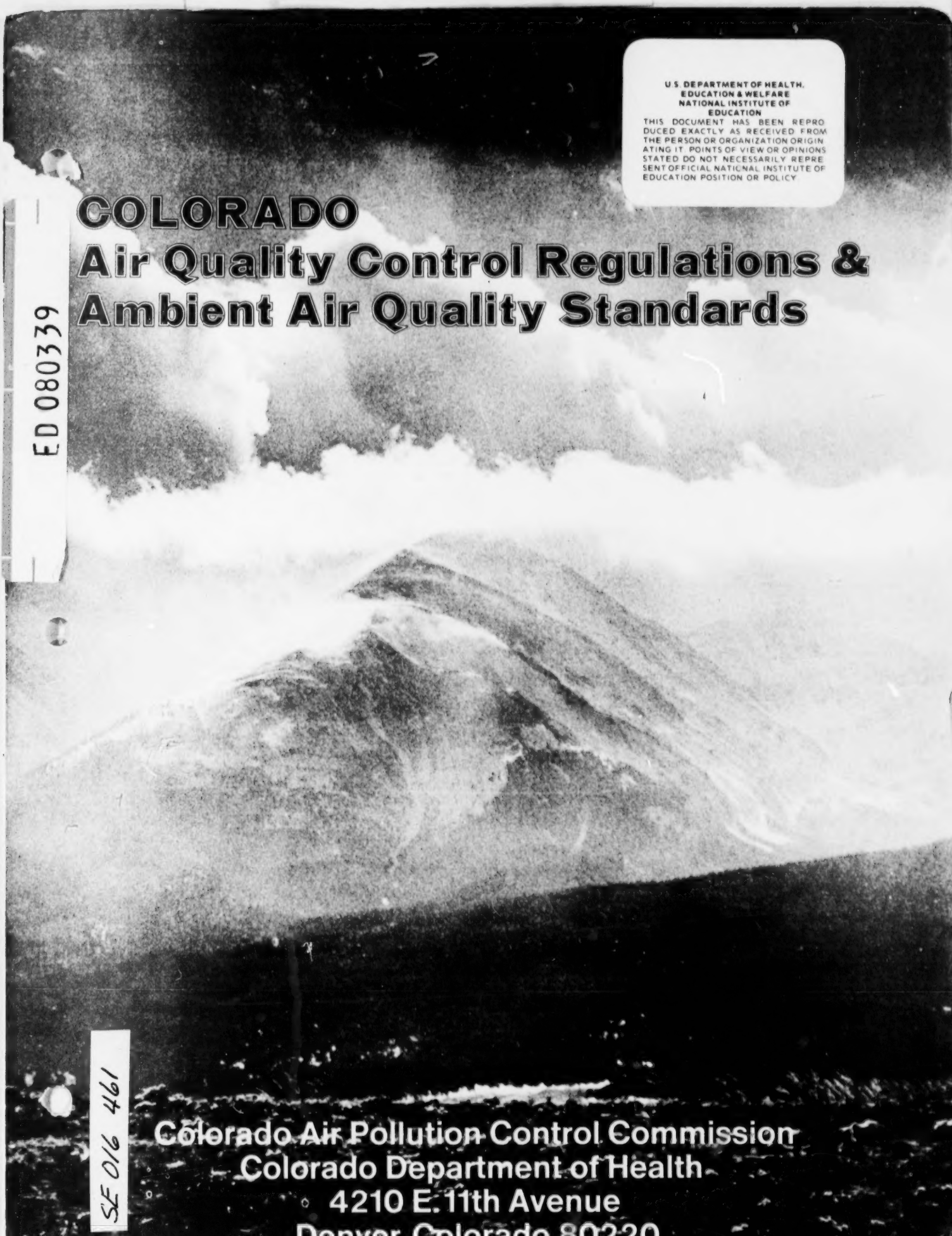
COLORADO
Air Quality Control Regulations & Ambient Air Quality Standards



SE 016 461

Colorado Air Pollution Control Commission
Colorado Department of Health
4210 E. 11th Avenue
Denver, Colorado 80220

ED 080339

COLORADO
AIR QUALITY CONTROL REGULATIONS AND AMBIENT AIR QUALITY STANDARDS

Colorado Air Pollution Control Commission
Colorado Department of Health
4210 E. 11th Avenue
Denver, Colorado 80220

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AMBIENT AIR STANDARDS

SUSPENDED PARTICULATE MATTER AND SULFUR DIOXIDE

COMMON PROVISIONS REGULATION

Definitions, Statement of Intent and General Provisions applicable to all emission control regulations adopted by the Colorado Air Pollution Control Commission

Colorado Air Pollution Control Commission

Adopted : December 9, 1971
Effective Date: February 1, 1972

COMMON PROVISIONS REGULATION

Definitions, Statement of Intent and General Provisions applicable to all emission control regulations adopted by the Colorado Air Pollution Control Commission.

APPLICABILITY:

Emission control regulations adopted by the Commission apply throughout Colorado unless otherwise stipulated. The statement of intent, definitions, and general provisions of this regulation apply to all emission control regulations adopted by the Commission unless otherwise stipulated.

AUTHORITY:

Section 66-31-8 of the Colorado Air Pollution Control Act of 1970 provides: "As promptly as possible, the Commission shall adopt and promulgate emission control regulations which require the use of effective practical air pollution controls for each and every significant source, potential source, and type of source of air contamination throughout the entire State and thereafter may modify such regulations from time to time." Sections 66-31-4, 66-31-6 and 66-31-8 of the Act are the general statutory authority for adoption by the Air Pollution Control Commission of standards and the specific section of the Act is cited in each instance.

STATE OF COLORADO AIR POLLUTION CONTROL ACT (1970) LEGISLATIVE DECLARATION (66-31-2)

In order to foster the health, welfare, convenience, and comfort of the inhabitants of the State of Colorado, and to facilitate the enjoyment of nature, scenery, and other resources of the State, it is hereby declared to be the policy of the State to achieve the maximum practical degree of air purity in every portion of the State. To that end, it is the purpose of this article to require the use of all available practical methods to reduce, prevent, and control air pollution throughout the entire State of Colorado, and to maintain a cooperative program between the State and local units of government. It is further declared that the prevention, abatement, and control of air pollution in each portion of the entire State are matters of statewide concern and are effected with a public interest and that the provisions of this article are enacted in the exercise of the police powers of this State for the purpose of protecting the health, peace, safety, and general welfare of the people of this State.

INTENT:

To implement the legislative declaration and other sections of the Act, the Commission declares that it is the intent and purpose of these regulations:

1. To achieve and maintain levels of air quality which will protect human health and safety, prevent injury to plant and animal life, prevent damage to property, prevent unreasonable interference with the public welfare, preserve visibility and protect scenic, aesthetic and historic values of Colorado,

2. To require the use of all available practical methods to reduce, prevent, and control air pollution for the protection of the health, safety, and general welfare of the people of the state of Colorado. In order to achieve air purity consistent with this intent it is necessary, ultimately to control air contaminant emissions to such a degree of opacity so that the emissions are no longer visible,

3. To prevent significant degradation of Colorado's air resource,

4. To prevent odors and other air pollution problems which interfere with the comfortable enjoyment of life, and

5. To apply the major resources of the Colorado air pollution control programs toward solving priority air pollution problems.

The Commission recognizes that the growth in the amount and complexity of air pollution in Colorado is brought about by and incident to population growth, mobility, increased affluence, industrial development and changing social values in said State. The Commission believes that the air pollution problem is likely to be aggravated and compounded by additional population growth, mobility, affluence, industrial development, and changing social values in the future, which are likely to result in serious potential danger to the public and the environment. Therefore, the Commission intends to pursue solutions, in conjunction with other appropriate agencies and interests, which have a direct interest and capability in solving a growing air pollution problem in relation to the broader environmental degradation problem. It is the intent of the Commission to coordinate with industrial, commercial, agricultural and transportation planning organizations, land use and other environmental organizations, the public, the legislature, educational organizations, and other major interests in such a manner as to prevent air pollution in Colorado.

I. DEFINITIONS:

The following words and phrases have the following meanings unless the context in which they are used requires otherwise:

ACT	the Colorado Air Pollution Control Act of 1970, Chapter 64, Colorado Session laws 1970.
AIR CONTAMINANT	any fume, smoke, particulate matter, vapor, gas, or any combination thereof, but not including water vapor or steam condensate.
AIR CONTAMINATION SOURCE	any source whatsoever at, from, or by reason of which there is emitted or discharged into the atmosphere any air contaminant.
AIR CONTAMINATION SOURCE (existing)	Any air contamination source, which has been constructed or for which there is a binding agreement or contract providing for its construction or modification to be completed within a reasonable time after the effective date of the regulation in question.
AIR CONTAMINATION SOURCE (new)	Any air contamination source which is to be constructed or modified and which is other than an existing air contamination source.
AIR POLLUTION	any concentration of one or more air contaminants in the outdoor atmosphere as has caused, is causing, or if unabated may cause injury to human, plant, or animal life, or injury to property, or which unreasonably interferes with the comfortable enjoyment of life or property or with the conduct of business.
AIR POLLUTION CONTROL AUTHORITY	the Division, or any person or agency given authority by the Division, or a local governmental unit duly authorized with respect to air pollution control.
AMBIENT AIR	is the surrounding outside air.

ATMOSPHERE	means the air that envelops or surrounds the earth. For the purpose of this regulation emissions of air contaminants from a building or structure not specifically designed to control air pollution originating from an air contamination source or sources within such building or structure shall constitute an emission to the atmosphere.
COMMISSION	the Colorado Air Pollution Control Commission created by Section 66-31-4 of the Act.
DEPARTMENT	The Colorado Department of Health.
DIVISION	the Division of Air Pollution Control, Colorado Department of Health.
DUSTS	minute solid particles released into the air by natural forces or by mechanical processes such as crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, sweeping, etc.
EMISSION	the discharge or release into the atmosphere of one or more air contaminants.
EMISSION CONTROL REGULATION	any standard promulgated by regulation which is applicable to all air contamination sources within a specified area and which prohibits or establishes permissible limits for specific types of emissions in such area, and also any regulation which by its terms is applicable to a specified type of facility, process, or activity for the purpose of controlling the extent, degree, or nature of contamination emitted from such type of facility, process, or activity, and also any regulation adopted for the purpose of preventing or minimizing emission of any air contaminant in potentially dangerous quantities.
FUEL BURNING EQUIPMENT	any furnace, boiler apparatus, stack, or appurtenances thereto used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer.
FUGITIVE DUST	solid airborne particulate matter emitted from any source other than an opening.

INCINERATOR	any equipment, device, or contrivance used for the destruction of garbage, rubbish, or other wastes by burning, but not wood wastes burned in devices commonly called tepee burners, silos, truncated cones, wigwam burners, and other such burners used commonly by the wood products industry.
MODIFICATIONS	1. The construction or installation on the premises of new equipment; 2. The replacement or alteration of equipment in such a manner as to either increase or decrease the production or control of air contamination excluding routine adjustments or maintenance; and 3. the moving of equipment to another premise.
MULTIPLE CHAMBER INCINERATOR	any article, machine, equipment, contrivance, structure, or part of a structure used to dispose of combustible refuse by burning, consisting of three or more refractory-lined combustion furnaces in series, physically separated by refractory walls, inter-connected by gas passage ports or ducts, and employing adequate design parameters necessary for maximum combustion of the material to be burned.
OPACITY	the degree to which an air contaminant emission obscures the view of an observer, expressed in percentage of the obscuration, or in the degree (percent) to which transmittance of light is reduced by an air contaminant emission.
OPEN BURNING	fire, where any material is burned in the open or in a receptacle other than a furnace, incinerator, or other equipment connected to a stack or chimney.
OPENING	any single chimney, conduit, duct, smokestack, flue or other contrivance from which air contaminants are exhausted into the atmosphere.
PARTICULATE MATTER	any material, except uncombined water, that exists in a finely divided form as a liquid or solid.

PERSON	any individual, public or private corporation, partnership, association, firm, trust, estate, the State or any department, institution, or agency thereof, any municipal corporation, county, city and county, or other political subdivision of the State, or any other legal entity whatsoever which is recognized by law as the subject of rights and duties.
PROCESS OR PROCESS EQUIPMENT	any action, operation, or treatment, involving chemical, industrial, or manufacturing factors, such as heat-treating furnaces, by-product coke plants, coke-baking ovens, mixing kettles, cupulas, blast furnaces, open hearth furnaces, heating and reheating furnaces, puddling furnaces, sintering plants, Bessemer converters, electric steel furnaces, ferrous and non-ferrous foundries, kilns, stills, dryers, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit air contamination.
PROCESS UNIT	any single process or process equipment
PROCESS WEIGHT	the total weight of all materials introduced into a source operation, which source causes any discharge of air contaminants into the atmosphere. Solid fuels introduced into any specific source will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not.
PROCESS WEIGHT RATE	a rate established as follows: (a) for continuous source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof, or (b) for cyclical or batch unit operations, or unit processes, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period, or

(c) for operations, not specified above, determine the process weight that results in a minimum value for allowable emissions.

SMOKE — small gas-borne particles resulting from incomplete combustion, consisting predominantly, but not exclusively of carbon, and other combustible material.

STACK OR CHIMNEY — any vertical flue, conduit, or duct arranged to conduct an effluent to the open air.

STANDARD CONDITIONS — a gas temperature of 68 degrees Fahrenheit and a gas pressure of 29.92 inches of mercury.

UPSET CONDITIONS — an unpredictable equipment failure or other malfunction which results in the violation of emission control regulation, and which is not due to improper or careless operation.

II. GENERAL:

A. TO CONTROL EMISSIONS LEAVING COLORADO:

"When emissions generated from sources in Colorado cross the state boundary line, such emissions shall not cause the air quality standards of the receiving state to be exceeded provided reciprocal action is taken by the receiving state." (66-31-21(3)).

B. EMISSION MONITORING REQUIREMENTS:

The Division may require owners or operators of stationary air contamination sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division. (66-31-6, 66-31-10(2)(c) and (d)).

C. PERFORMANCE TESTING:

In order to determine compliance with emission control regulations, the Division may require the owner or operator of any source to conduct performance tests in accordance with methods approved by the Division with the tests being made at the expense of the owner or operator. The Division may monitor such required performance tests conducted by the owner or operator and may also conduct performance tests. (66-31-6, 66-31-10(2)(c) and (d)).

D. UPSET CONDITIONS AND BREAKDOWNS:

Upset conditions, as defined, shall not be deemed to be in violation of these Regulations provided that the Air Pollution Control Division is notified as soon as possible, but no later than 2 hours after the start of the next working day, followed by written notice to the Division explaining the cause of the occurrence and that proper action has been or is being taken to correct the conditions causing said violation and to prevent such excess emissions in the future. (66-31-8(4)).

E. EFFECTIVE DATE:

The effective date of this "common provisions regulation" is February 1, 1972.

F. REVOCATION OF TEMPORARY EMISSION CONTROL REGULATIONS:

The temporary emission control regulations, identical to provisions set forth in sections 66-29-5(2) through (6), Colorado revised statutes 1963, as amended, are revoked. (66-31-24(1)).

G. CONFLICTS:

Nothing in these regulations is intended to permit any practice which is a violation of any statute, ordinance or regulation. (66-31-6).

H. SEVERABILITY CLAUSE:

If any Regulation, Section, clause, phrase, or standard contained in these regulations shall for any reason be held to be inoperative, unconstitutional, void or invalid, the validity of the remaining portions thereof shall not be affected thereby and the Commission does hereby declare that it severally passed and adopted the provisions contained therein separately and apart from the other provisions thereof. (66-31-6).

I. CIRCUMVENTION CLAUSE:

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this Regulation. No person shall circumvent this Regulation by using more openings than is considered normal practice by the industry or activity in question. (Sections 66-31-8(1)(a) and (b), and 66-31-8(3)(a)).

REGULATION NO. 1

(Amended)

Emission Control Regulations for
Particulates, Smokes, and Sulfur Oxides
for the State of Colorado

Colorado Air Pollution Control Commission

Adopted : December 9, 1971
Effective Date: February 1, 1972

REGULATION NO. 1
(Amended)

Emission Control Regulations for
Particulates, Smokes, and Sulfur Oxides
for the State of Colorado

I. SMOKE EMISSIONS AND OPACITY REGULATIONS:

A. Stationary Air Contamination Sources:

1. No person shall emit or cause to be emitted into the atmosphere, from any air contamination source of emission whatsoever, any air contaminant which is of such a shade or density as to obscure an observer's vision to a degree in excess of 20% opacity. Instrumentation which results in equivalent readings may be used in specific installations if approved in advance by the Air Pollution Control Division. (66-31-8(2) (a) and (b).

2. Exceptions:

a. No person shall emit or cause to be emitted into the atmosphere from any alfalfa dehydrating mill, any air contaminant for a period or periods aggregating more than three minutes in any 60 consecutive minutes which is of such a shade or density as to obscure an observer's vision to a degree in excess of 40% opacity. This emission standard for alfalfa dehydrating mills shall be in effect up to and including one year from the effective date of the Smoke Emissions and Opacity Regulations (Part I, Section A); thereafter, the 20% opacity limitation provided in Part I Section A shall apply to emissions from alfalfa dehydrating mills. (66-31-8(3)(a) and (f)).

b. No person shall emit or cause to be emitted into the atmosphere from any pilot plant and experimental operation any air contaminant for a period or periods aggregating more than three minutes in any 60 consecutive minutes which is of such a shade or density as to obscure an observer's vision to a degree in excess of 40% opacity. This emission standard for pilot plants and experimental operations shall be in effect for a period not to exceed 180 operating days, cumulative total, from the date such operations commence; thereafter, the 20% opacity limitation provided in Part I Section A of these regulations shall apply to emissions from pilot plants and experimental operations. (66-31-8(1)(a)(e) and (f)).

c. Emissions from fireplaces used for non-commercial or recreational purposes shall be exempt from Part I Section A.1 of these regulations. (66-31-8(1)(a)(d)(e) and (f)).

d. Provisions of I.A.1 shall not apply to emissions during the building of a new fire, cleaning of fires, soot blowing, start-up, any process modification or adjustment, or occasional cleaning of control equipment, the shade or appearance of which is not darker than an equivalent opacity as to obscure an observer's view to a degree not greater than 40%, for a period or periods aggregating no more than 3 minutes in any one hour.

B. Transportation Sources:

1. Four-cycle gasoline-powered vehicles:

No person shall emit or cause to be emitted into the atmosphere for a period greater than 5 consecutive seconds from any four-cycle gasoline-powered vehicle whatsoever any visible air contaminant.

2. Two-cycle gasoline-powered vehicles:

No person shall emit or cause to be emitted from any two-cycle gasoline-powered vehicle into the atmosphere any visible air contaminant which is of such a shade or density as to obscure an observer's vision to a degree equal to or greater than 20% opacity, except for a period not exceeding 10 consecutive seconds.

3. Diesel-powered vehicles:

a. No person shall emit or cause to be emitted into the atmosphere from any diesel-powered vehicle operating below 8,000 feet (mean sea level) any air contaminant, for a period greater than 10 consecutive seconds, which is of such a shade or density as to obscure an observer's vision to a degree in excess of 30% opacity. (66-31-8(2)(a) and (b), 66-31-8(3)(a) and (b)).

b. No person shall emit or cause to be emitted into the atmosphere from any diesel-powered vehicle operating above 8,000 feet (mean sea level) any air contaminant, for a period greater than 10 consecutive seconds, which is of such a shade or density as to obscure an observer's vision to a degree in excess of 40% opacity. (66-31-8(2)(a) and (b) and 66-31-8(3)(a) and (b)).

c. Exceptions:

c-1. Emissions from diesel-powered vehicles exceeding Part B Sections 2 (a) and (b) of these regulations shall be exempt if the emissions are a direct result of a cold engine start-up. (66-31-8(4).

c-2. All off-highway heavy duty diesel-powered vehicles are exempt from Part B Sections 2(a) and (b) of these regulations. (66-31-8(4)).

4. Diesel-Powered Locomotives:

a. No person shall emit or cause to be emitted into the atmosphere from any diesel-powered locomotive operating below 8,000 feet (mean sea level) any air contaminant, for a period greater than 10 seconds, which is of such a shade or density as to obscure an observer's vision to a degree in excess of 20% opacity. (66-31-8(2)(a) and (b) and 66-31-8(3)(a) and (b)).

b. No person shall emit or cause to be emitted into the atmosphere from any diesel-powered locomotive operating above 8,000 feet (mean sea level) any air contaminant, for a period greater than 10 seconds, which is of such a shade or density as to obscure an observer's vision to a degree in excess of 40% opacity. (66-31-8(2) (a) and (b) and 66-31-8(3)(a) and (b)).

c. Exceptions:

c-1. No person shall emit or cause to be emitted into the atmosphere from any diesel-powered locomotive for switching and railroad yard use any air contaminant for a period greater than 10 consecutive seconds duration which is of such a shade or density as to obscure an observer's vision to a degree in excess of 40% opacity. (66-31-8(4)).

c-2. Emissions from diesel-powered locomotives exceeding Part B, Section 3 (a) and (b) of these regulations shall be exempt if the emissions are a direct result of a cold engine start-up. (66-31-8(4)).

C. Open Burning:

1. No person shall burn or permit to be burned on any open premises owned or controlled by him, or on any public street, alley, or other land adjacent to such premises, rubbish, waste, paper, wood, or other flammable material unless a permit therefor shall first have been obtained from the appropriate authority enforcing air pollution control standards or the designee of the Air Pollution Control Division. In granting or denying the issuance of any such permit, said authority shall base its action on the location and proximity of such burning to any building or other structure, the potential contribution of such burning to air pollution in the area, climatic conditions on the day or days of such burning, and compliance by the applicant for the permit with applicable fire protection and safety requirements of the local authority or area, and the air pollution control authority is satisfied that there is no practical alternative method for the disposal of the material to be burned or to conduct the desired activity. (66-31-8(2)(a), (b), (f), and 66-31-20)).

2. Exceptions:

a. The provisions of Part I Section C of these regulations shall not apply to private non-commercial burning of domestic trash outside such air pollution control areas as have been or shall be designated by the Air Pollution Control Commission (See Exhibit 1) and outside a 2-mile boundary from the corporate limits of any city or town with a population of over 500 as determined by the latest Federal census. (66-31-8(4)).

b. Fires used for non-commercial cooking of food for human beings or for instructional or recreational purposes shall be exempt from Part I, Section C of these regulations. (66-31-8(4)).

c. Smokeless flares or safety flares for the combustion of waste gases shall be exempt from Part I, Section C of these regulations. (66-31-8(4)).

d. Flares used to indicate some danger to the public shall be exempt from Part I, Section C of these regulations. (66-31-8(4)).

3. Effective Date:

This Part I, Section C, "Open Burning" shall become effective July 1, 1971, at which time it will supersede the temporary emission control regulation upon the same subject matter provided in Section 66-31-24 of the "Air Pollution Control Act of 1970."

II. PARTICULATE EMISSION REGULATIONS

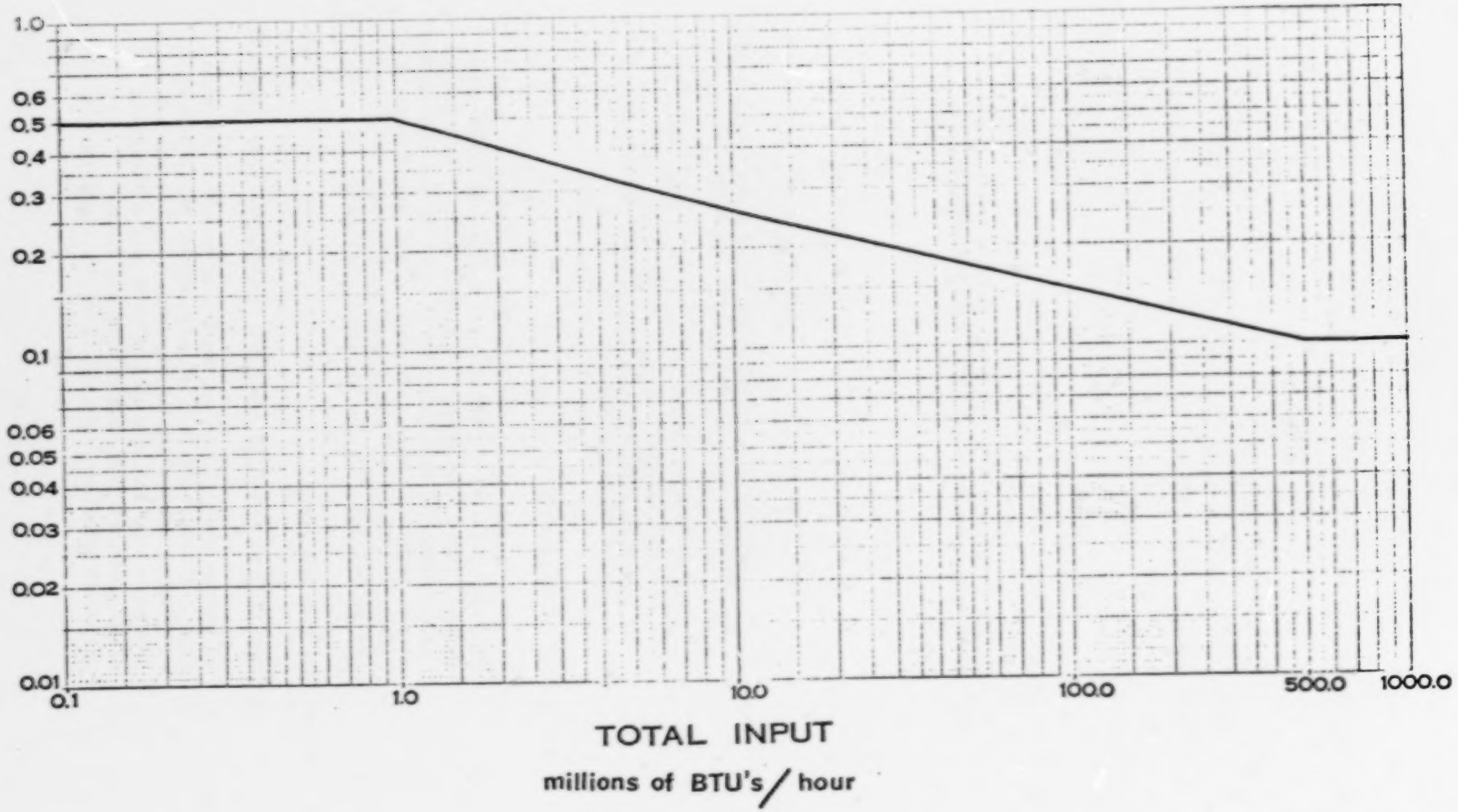
A. Fuel-Burning Equipment:

1. No person shall cause or permit to be emitted into the atmosphere from any fuel-burning equipment, or to pass a convenient measuring point near any opening, particulate matter in the flue gases which exceed 0.5 pounds per 1,000,000 BTU heat input for fuel-burning units generating not more than 1,000,000 BTU per hour total input. For single units generating 1,000,000 BTU per hour or more total input, Figure 1 on the following page will be used to determine the allowable particulate emission limitation. For fuel-burning equipment generating 500 million BTU input per hour or more, particulate matter in the flue gases cannot exceed 0.1 pounds per million BTU heat input. If two or more units connect to any opening, each unit shall, for the purpose of computing the maximum allowable emission rate, be considered a separate entity with the allowable emission rate for the opening the sum of the individual computations. (66-31-8(2) and (c), and 66-31-8-(3)(a)).

Typical Values from Figure 1 are shown in TABLE I.

FIGURE 1

FUEL BURNING EQUIPMENT



II. A (continued)

TABLE I

Fuel Input	Particulate Emissions	Fuel Input	Particulate Emissions
10^6 BTU/hr.	lbs./10^6BTU	10^6 BTU/hr.	lbs./10^6 BTU
0.1	0.50	100	0.15
1.0	0.50	500	0.10
10.0	0.27	1000	0.10

Interpolation of the data in TABLE I for fuel-burning equipment shall be by use of the following equations:

$$PE = 0.5 \qquad FI \leq 1.0$$

$$PE = 0.5\ (FI)^{-0.26} \qquad 1.0 < FI < 500.0$$

$$PE = 0.1 \qquad 500.0 < FI$$

Where: PE = Particulate Emission in pounds per million BTU
FI = Fuel Input in million BTU per hour

$<$, Less than or equal to (if "FI" is to the left of the symbol).
Greater than or equal to (if"FI" is to the right of the symbol)

2. Method of Measurement:

a. Emission rates shall be measured according to the American Society of Mechanical Engineer's Power Test Codes - PTC-27 dated 1957 and entitled, "Determining Dust Concentrations in a Gas Stream" or any equivalent method which has been approved by the Air Pollution Control Division in advance of such measurement. (66-31-8(2)(a) and (c) and 66-31-8(3)(a)).

B. Refuse-Burning Equipment:

1. Incinerators of not more than 200 pounds per hour capacity:

a. No person shall cause or permit an emission of more than 0.15 grain of particulate matter per standard cubic foot (dry flue gas corrected to 12% carbon dioxide) into the atmosphere from any incinerator rated not more than 200 pounds per hour. (66-31-8(2)(a) and (c), 66-31-8(3)(a) and (b)).

II. B. (continued)

2. Incinerators of over 200 pounds per hour capacity:

   a. No person shall cause or permit an emission of more than 0.10 grain of particulate matter per standard cubic foot (dry flue gas corrected to 12% carbon dioxide) into the atmosphere from any incinerator rated more than 200 pounds per hour. (66-31-8(2), (a) and (c), and 66-31-8(3) (a) and (b)).

3. No person shall burn any refuse in any multiple chamber incinerator or other equipment of equal effectiveness unless the Division has approved in advance the use of such type incinerator or other equipment for the purpose of air pollution control. (66-31-8(2), (a) and (c), and 66-31-8(3), (a) and (b)).

4. Method of Measurement:

   a. Emission rates shall be measured according to the American Society of Mechanical Engineer's Power Test Codes - PTC-27 dated 1957 and entitled, "Determining Dust Concentrations in a Gas Stream" or any equivalent method which has been approved by the Air Pollution Control Division in advance of such measurement. The test data shall reflect particulate gas stream concentrations consistent with the rated capacity of the incinerator, and corrections for carbon dioxide will be made without the contribution of carbon dioxide from auxiliary fuel. (66-31-8(3), (a) and (b)).

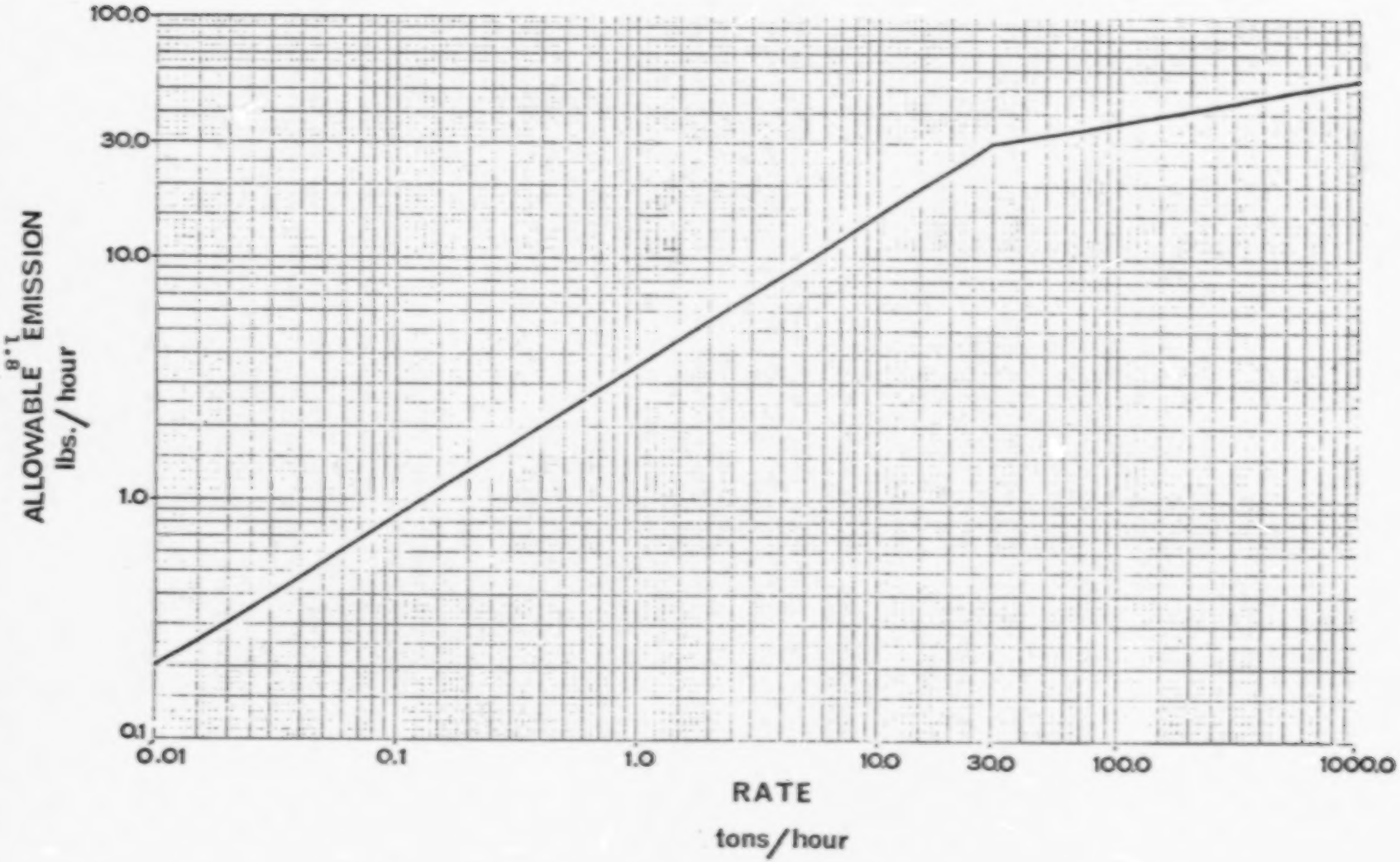
C. Manufacturing Processes:

1. No person shall cause or permit any emission into the atmosphere in any 60 consecutive minutes from any opening whatsoever, particulate matter in quantities in excess of the emission rates as shown in Figure 2. If two or more process units connect to an opening each process unit shall, for the purpose of computing the maximum allowable emission rate, be considered a separate entity with the allowable emission rate for the opening the sum of the individual computations. (66-31-8(2), (a) and (c), and 66-31-8(3)(a) (f) and (g)).

   Typical Values from Figure 2 are shown in TABLE II.

FIGURE 2

PROCESS WEIGHT RATE



II.C(continued)

TABLE II

Process Weight Rate lbs./hr.	Emission Rate lbs./hr.	Process Weight Rate lbs./hr.	Emission Rate lbs./hr.
50	0.03	5,000	6.34
100	0.55	10,000	9.73
500	1.53	20,000	14.99
1,000	2.25	60,000	29.60

Process Weight Rate tons/hr.	Emission Rate lbs./hr.	Process Weight Rate tons/hr.	Emission Rate lbs./hr.
40	31.19	100	36.11
60	33.28	200	40.35
80	34.85	500	46.72

Interpolation of the data in Table II for the process weight rates up to 60,000 lbs./hr. shall be by use of the equation:

$$E = 3.59\ P^{0.62} \qquad P \leq 30 \text{ tons/hr.}$$

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lbs./hr. shall be by use of the equation:

$$E = 17.31\ P^{0.16} \qquad 30 \text{ tons/hr.} \leq P$$

Where: E = Emissions in pounds per hour.
P = Process weight rate in tons per hour.

$\leq$, Less than or equal to (if "P" is to the left of the symbol).
Greater than or equal to (if "P" is to the right of the symbol)

2. Method of Measurement:

Emission rates shall be measured according to the American Society of Mechanical Engineer's Power Test Codes - PTC-27 dated 1957 and entitled, "Determining Dust Concentrations in a Gas Stream" or any equivalent method which has been approved by the Air Pollution Control Division in advance of such measurement. (66-31-8(2)(a) and (c), and 66-31-8(3)(a), (f) and (g)).

II. (continued)

D. Fugitive Dust:

1. Fugitive dust is particulate matter which is airborne from unenclosed operations, such as site preparation, quarrying, transport of finely divided material, open storage, storage yards, construction sites, demolition sites, roadways and streets, feed lots, campgrounds and fairgrounds, but shall not include particulate matter controlled pursuant to Part II Section A relating to fuel-burning equipment, Part II Section B relating to refuse-burning equipment, and Part II Section C relating to manufacturing processes. If fugitive dust leaves the property on which it originates in sufficient quantity to be deemed objectionable, as defined in Part II Section D and Subsection 2, the person or persons, responsible for the operation of the site, shall be required to adopt the best practical method to control or to prevent the escape of such fugitive dust. Agricultural and other operations shall be deemed in compliance with this regulation if such operations are in compliance with the provisions of 1963 C.R.S. 128-3-1 through 128-3-8, and with the provisions for the stabilization of disturbed surface areas of Chapter 92 Article 3, Sections 1, 3, and 4, Chapter 92, Article 13 and Chapter 92, Article 32, Section 5, 1963 C.R.S. as amended. ((1969 Perm.Cum.Supp. 66-31-8(2)(a) and (c), and 66-31-8(3)(a) and (d)).

2. For the purpose of this Regulation, fugitive dust shall be deemed to be objectionable when:

a. among a sample of persons exposed to it, at least 20% of said sample, but in no case fewer than 5 persons, determine that it is offensive and that it obstructs or interferes with the reasonable and comfortable use and enjoyment of property, or

b. sampling or other reasonably definitive observation demonstrates than an amount of fugitive dust is being or has been transported off of the property of the operations onto another's property so as to obstruct or interfere with the reasonable and comfortable use and enjoyment of property.

3. When not fewer than five complaints of objectionable fugitive dust are registered with the Division, and earlier at the option of the Division, it shall be the responsibility of the Division to investigate the complaints to determine if a violation of this regulation has occurred and to identify the source or sources of the fugitive dust and the circumstances surrounding its emission.

III. SULFUR DIOXIDE EMISSION REGULATIONS:

A. Ground Level Concentrations:

1. No person shall cause or permit any emission of sulfur dioxide which causes a 5-minute average ground level concentration greater than 0.25 parts per million (by volume) more frequently than once in any 8 hours; or a 1-hour average ground level concentration greater than 0.1 parts per million (by volume) more frequently than once in any 4 days; or a 24-hour average ground level concentration greater than 0.05 parts per million (by volume) more frequently than once in any 90 days. Such limitations shall not apply to ground level concentrations occurring on the property from which the emission occurs, provided such property, from the emission point to the point of any such concentration, is controlled by the person responsible for the emission. (66-31-8(2)(a) and (d)).

B. Source Emission Concentrations:

1. No person shall emit or cause to be emitted sulfur dioxide emissions,

a. in excess of 500 ppm from any opening

b. greater than 5 tons per day from any air contamination source.

2. The limitations of III B.1 (b) shall not apply to:

a. emissions of sulfur dioxide at concentrations of less than 150 ppm, and

b. to any existing air contamination source as of February 1, 1972.

3. The exemption of III B.2(b) shall terminate on January 1, 1975.

C. Method of Measurement

1. For the purposes of Section A of this Regulation, measurements of sulfur dioxide shall be made by the most recent published method of the Intersociety Committee for a Manual of Methods for Ambient Air Sampling and Analysis ((See e.g., Health Laboratory Science 7 (1) 4-12 (1970)) or any equivalent method which has been approved by the Air Pollution Control Division in advance of such measurement.

2. For the purposes of Section B of this regulation, measurements of sulfur dioxide shall be made by "An Absorption-Titration Method" ((e.g., J.S. Fritz and S.S. Yamamura, Analytical Chemistry 27 (9) 1461 (1955) and E.B. Seidman, Analytical Chemistry 30 (10) 1680 (1959)) or any equivalent method which has been approved by the Air Pollution Control Division in advance of such measurement.

D. Related Compounds containing sulfur in oxidized states:

1. For the purposes of this Regulation, all oxidized forms of sulfur (including, but not restricted to, SO_3, $SOCl_2$, H_2SO_4 mist) shall be considered as sulfur dioxide.

2. Quantities of such oxidized sulfur compounds, as measured by procedures established in Section C above, shall be converted on a molar basis to an equivalent quantity of sulfur dioxide. The total of all such quantities, parts per million by volume sulfur dioxide plus parts per million by volume sulfur-dioxide-equivalents of other oxidized forms, shall be interpreted as "parts per million by volume sulfur dioxide" as used in Sections A and B above.

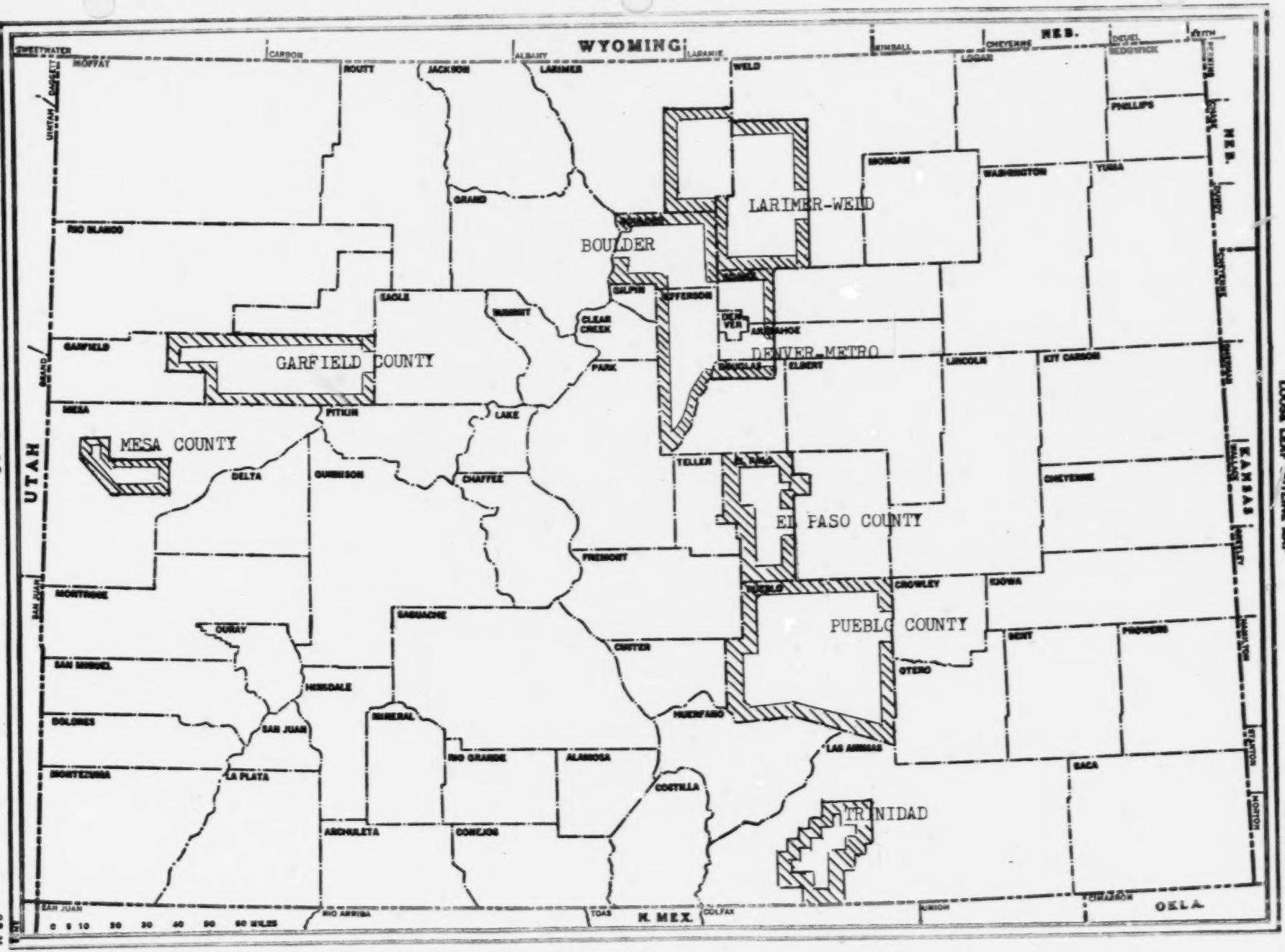
IV. EFFECTIVE DATE:

These Regulations as adopted amend and supersede Commission Regulation No. 1 upon the effective date hereof, to wit:

February 1, 1972.

STATE AIR POLLUTION CONTROL AREAS

EXHIBIT 1



LOOSE LEAF OUTLINE MAP

COLORADO

1.13

REGULATION NO. 2

Odor Emission Regulations

Colorado Air Pollution Control Commission

Adopted : March 11, 1971
Effective Date: April 20, 1971

COLORADO DEPARTMENT OF HEALTH
Air Pollution Control Commission
4210 East 11th Avenue
Denver, Colorado 80220

Adopted : March 11, 1971
Effective Date: April 20, 1971

REGULATION 2

ODOR EMISSION REGULATIONS

Pursuant to Section 66-31-8(2)(e) of the Colorado Air Pollution Control Act of 1970, the following Emission Regulations are issued:

A. No person, wherever located, shall cause or allow the emission of odorous air contaminants from any single source such as to result in detectable odors which are measured in excess of the following limits:

(1) For areas used predominantly for residential or commercial purposes it is a violation if odors are detected after the odorous air has been diluted with seven (7) or more volumes of odor free air.

(2) In all other land use areas, it is a violation if odors are detected after the odorous air has been diluted with fifteen (15) or more volumes of odor free air.

(3) (a) When the source is a manufacturing process or agricultural operation, no violation of Subsections (1) and (2) shall be cited by the Division, provided that the best practical treatment, maintenance, and control currently available shall be utilized in order to maintain the lowest possible emission of odorous gases and, where applicable, provided there is compliance with Item 4r of the Colorado Department of Health Pasteurized Fluid Milk and Milk Products Regulation adopted 18 April 1967. In determining the best practical control methods, the Division shall not require any method which would result in an arbitrary and unreasonable taking of property or in the practical closing of any lawful business or activity, if such would be without corresponding public benefit.

(b) For all areas it is a violation when odors are detected after the odorous air has been diluted with one hundred twenty-seven (127) or more volumes of odor free air in which case provisions of Paragraph A(3)(a) shall not be applicable.

B. For the purposes of this Regulation, two odor measurements shall be made within a period of one hour, these measurements being separated by at least fifteen (15) minutes. These measurements shall be made outside the property line of the property from which the emission originates.

C. For the purposes of this Regulation, personnel for evaluating odors shall be selected using an "intensity rating test" as outlined in "Selection and Training of Judges for Sensory Evaluation of the Intensity and Character of Diesel Exhaust Odors." USPHS Pub.#999-AP-32.

D. The Barnebey-Cheney Scentometer, suitably calibrated, or any other instrument, device, or technique designated by the Colorado Air Pollution Control Division, may be used in the determination of the intensity of an odor and may be used as a guide in the enforcement of this Regulation.

E. The provisions of this Regulation shall apply throughout the State of Colorado.

REGULATION NO. 3

Regulation Governing Authority to Construct
and
Permit to Operate

Colorado Air Pollution Control Commission

Adopted : December 9, 1971
Effective Date: February 1, 1972

Adopted : December 9, 1971
Effective Date: February 1, 1972

REGULATION NO. 3

Regulation Governing Authority to Construct and Permit to Operate

I. INSTRUCTIONS, PROCEDURAL GUIDELINES, AND SAMPLE FORMS FOR FILING AN AIR CONTAMINANT EMISSION NOTICE:

The Act requires an "air contaminant emission notice" be filed with the Department prior to the emission of an air contaminant from any facility, process, or activity. The Commission has defined insignificant sources exempted from filing a notice as listed in IV.A of Regulation No. 3. Any facility, process, or activity which is altered and results in an increase in emission of air contaminants must also file an "air contaminant emission notice" with the Department with respect to such proposed emission. A revised emission notice is required and shall be filed whenever a significant change in emissions shall have occurred. (See instructions)

Effective July 10, 1970, no person shall discharge, or cause to be discharged, into the atmosphere any air contaminant if an "air contaminant emission notice" has not been filed. Failure to comply with this provision of the Act is punishable by a fine of not more than one hundred dollars ($100).

The Air Contaminant Emission Notice may be obtained from the Colorado Department of Health (see below) or from any local air pollution control agency in Colorado.

The Air Contaminant Emission Notice is to be completed in triplicate and all copies mailed to:

COLORADO DEPARTMENT OF HEALTH
AIR POLLUTION CONTROL DIVISION
4210 East 11th Avenue
Denver, Colorado 80220

AIR CONTAMINANT EMISSION NOTICE

I. INSTRUCTIONS:

A. GENERAL SOURCE INFORMATION:

To be completed in detail by all persons that are required to file the "Air Contaminant Emission Notice."

B. PROCEDURES:

1. The Air Contaminant Emission Notice shall be prepared in accordance with the requirements of Section 66-31-12(2) of the Act.

"Each notice shall specify the location at which the proposed emission will occur, the name and address of the person operating or owning such facility, process, or activity, and the nature of such facility, process, or activity, and an estimate of the quantity and composition of the expected emission. The Division shall make available at all air pollution control authority offices appropriate forms on which the information required by this section shall be furnished."

2. The person filing the Notice shall use forms provided by the Division in supplying the necessary information. The person must make a reasonable effort to answer all applicable questions and to supply any pertinent information even though the forms and questions do not specifically request the information.

3. If the Division finds the Emission Notice to be incomplete or not filed with information as required in Section 66-31-12 of the Act, the Division may require in writing the required information.

4. The Division may require chemical analysis of a sample of any raw materials, fuels, or emissions which may help determine the identity and quantity of significant air contaminants.

C. FUEL COMBUSTION INFORMATION:

1. List the fuel used in the appropriate space provided and the percent used for space heating and for process heat.

2. List the type of fuel-burning equipment, collection equipment, or control equipment used and the expected efficiency of collection or control equipment; for example, boiler, boiler cyclone, 80% collecting efficiency.

3. Give rated BTU input.

4. Stack height information must be submitted.

5. Check your fuel bills for meter readings to determine natural gas usage.

D. BASIC PROCESS OR EQUIPMENT USED:

1. For basic process equipment, only that equipment which is a source of air contaminant (controlled or uncontrolled) should be listed; for example, dryer solvent extractor, grinder, etc.

2. Under this section, list only that equipment which is associated with, or a part of, the listed basic process equipment in Section D.1 above; for example, boiler, kiln, scrubber, grinder, baghouse, dryer, cyclone, solvent extractor, afterburner, etc.

3. The amount of air contaminants should be tabulated. Where precise data is not available, an estimate subject to later verification may be made.

E. MANUFACTURING ACTIVITIES INFORMATION:

If the reporting of raw material or product data reveals confidential information, indicate so on the form and submit under separate cover appropriately identified as confidential information. Only report products manufactured if the product results directly in the emission of an air contaminant.

1. Principal raw materials should be listed; for example, units of rock crushed, chemicals consumed, materials processed, etc., per year.

2. Principal products manufactured might include number of bricks, cubic yards of concrete, barrels of fuel, etc., produced per year.

F. REFUSE DISPOSAL INFORMATION:

Indicate the method of disposal and the amounts per year for each method.

G. PROCESS FLOW DIAGRAM, ETC.:

May be a simple line drawing showing those points in the process involved with the emission of air contaminant. Indicate volumes, temperatures, and estimated quantities of the expected emission on the diagram as well as any supplemental information. Where space is limited submit a key to diagram on a separate form.

H. SOLVENT EVAPORATION AND LOSSES:

List the types of solvents used and the estimated quantities of solvents lost to the air because of evaporation.

SAMPLE FORM

COLORADO DEPARTMENT OF HEALTH
AIR POLLUTION CONTROL DIVISION
4210 East 11th Avenue, Denver
388-6111 Ext. 241

DO NOT WRITE IN THIS SPACE

Coordinate Grid No.:
x ☐☐☐☐☐ y ☐☐☐☐☐
Kilometers Kilometers

SIC Code: ☐☐☐☐

STATUS Code: ☐☐☐☐

AIR CONTAMINANT EMISSION NOTICE

A. General Source Information (Leave box open for space)

Name of Firm:

Plant Address:

Mailing Address:

County: (Source location)

Type of Business Activity:

Person to Contact _____

Telephone: _____ Date: _____

☐ 1. New Plant

☐ 2. Existing Plant

☐ 3. Addition or Alteration to Existing Plant

Average Number of Employees: _____

Land Area at Plant Location in Acres: (circle)
A = (less than 1) B = (1-10) C =(10-50) D = (50 or more)

Number of Days of Week normally in Operation_____

Shifts or Hours of Day Normally in Operation_____

Percent of Annual Production by Season:

Summer ☐ Winter ☐
Fall ☐ Spring ☐

I certify to the best of my knowledge that all information submitted is correct.

_____
Authorized signature

Form 200A

B. FUEL COMBUSTION INFORMATION

1. Fuel consumption for heating, power, steam and electrical generation

Fuel*	Fuel Type or Grade	Sulfur Content	Quantity per year	Units of Measure	% Use by Season				BTU
					Dec-Feb	Mar-May	Jun-Aug	Sept Nov	BTU Rated Cap. & BTU of Fuel
Coal				Short Tons					
Fuel Oil				1,000 Gallons					
Natural Gas or L P Gas				1,000,000 **cu.ft.					
Process Gas				1,000,000 **cu.ft.					
Other (Describe)									

*Percent used for space heating _____

*Percent used for process heat _____

**All cu. ft. shall be at standard conditions (dry gas at 68° F, 29.92 inches Hg.)

AIR CONTAMINANT EMISSION NOTICE - Continued

SAMPLE FORM

2. Type and control of fuel burning equipment

Type of Unit*	BTU Rated Capacity	Collection Equipment	Efficiency of Collection Equip. (%)

* Boiler, roaster, oven, etc.

3. Amount and type of air contaminants being emitted

Type of Material Emitted	Amount Emitted (Tons/Year

(List specific contaminant, e.g. SO_2, fly ash, etc.)

4. Stack Information

Stack Use*	Height (ft.)	Exit Diameter(ft.)	Exhaust Gas Data at Exit		
			Temp. (°F)	Velocity (ft./sec.)	Moisture (%)

* Boiler, roaster, oven, etc.

C 1. Basic process or equipment used

Equipment Description	Capacity (Tons/hr., etc.

2. Air contaminant controls being used on above basic process equipment

Equipment Description	Efficiency (%)

3. Amount and type of air contaminants being emitted

Type of Material Emitted	Amount Emitted (Tons/year)

(List specific contaminants, e.g. SO_2, Cement dust, etc.)

4. Stack information

Stack Use*	Height (ft)	Exit Diameter (ft.)	Exhaust Gas Data at Exit		
			Temp. (°F)	Velocity (ft./sec.)	Moisture (%)

* Dryer, kiln, grinding, buffing, etc. (process related)

D. MANUFACTURING ACTIVITIES INFORMATION

1. Principal raw materials used in the process or manufacturing activity

Raw Materials	Amount per year	Units of Production (Tons, Gallons, Etc.)

2. Principal products manufactured

Product	Amount per year	Units of Production

E. REFUSE DISPOSAL INFORMATION

Principal methods of waste disposal

Type of Waste[a]	Method of Disposal[b]	Amount (Tons/Year)

a. Indicate process and non-process waste
b. If incinerator, give capacity in pounds per hour

F. PROCESS FLOW DIAGRAMS AND ANY RELATED INFORMATION OF THE PLANT OPERATIONS

II. AUTHORITY TO CONSTRUCT:

A. GENERAL

No person shall construct or modify any new air contamination source mentioned in II.B without receiving written authorization from the Division.

B. Classes of machines, equipment, articles, or contrivances for which authority is required are the following:

1. Basic equipment.

This class includes any machine, equipment, article or other contrivance associated with operations except as exempted in IV.A, the use of which may cause the emission of air contaminants.

2. Air pollution control equipment:

This class includes any machine, equipment, article, or other contrivance associated with operations or processes except as exempted in IV.A, the use of which may eliminate or reduce or control the emission of air contaminants.

C. Applications:

Applications for authority to construct shall be prepared on appropriate application forms supplied by the Division and filed as outlined in IV.B.

D. Standards and Procedures for Granting or Denying Applications:

1. No authority to construct or modify shall be granted to the applicant unless the Division determines to its satisfaction that:

a. The new air contamination source is so designed and will be constructed or modified to operate without causing a violation of the emission control regulations of the Commission, and any applicable national or local air pollution emission control ordinances and regulations.

b. The new air contamination source is designed, built, and equipped in accordance with the best available practical methods to reduce, prevent, and control air pollution.

c. The new air contamination source, as designed or modified does not significantly endanger maintenance or attainment as determined by criteria set forth in IV.C.2, of any ambient air quality standards of the Commission, and any more stringent national or local ambient air quality standards.

E. Conditional Approval of Applications:

1. An authority to construct or modify may be issued to an applicant owning or operating any new air contamination source subject to conditions which will make the equipment operate within the emission control regulations and ambient air quality standards of the Commission or applicable national or local air pollution control ordinances and regulations, and ambient air quality standards, in which case the conditions will be specified in writing. Commencing work under such an authority to construct shall be deemed acceptance by the applicant of all conditions specified.

2. The Division may impose conditions upon the applicant in the authority to construct or modify which require owners or operators of air contamination sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

F. Expiration of Authority to Construct:

The Division may cancel an authority to construct or modify if the construction or modification is not begun within six (6) months from the date construction is to be started as stated in the application, or if the work involved in the construction or modification is suspended for six (6) months or more. An applicant may secure an extension of the expiration date by written request to the Division stating the reasons for the request. Extensions may be granted for a period of not more than six (6) months.

III. PERMIT TO OPERATE:

A. No person shall begin operation of any new air contamination source mentioned in II.B of this Regulation without notifying the Division at least thirty (30) days prior to operation.

B. No person shall cause or permit the operation of any new air contamination source mentioned in II.B of this Regulation without applying for a permit to operate from the Division.

C. After January 1, 1975 no person shall cause or permit the use or operation of any existing air contamination sources mentioned in II.B of this regulation without first having been granted a permit to operate from the Division.

D. The requirement for a permit to operate shall be waived during the term of a variance.

E. No owner or operator shall cause or permit the operation of a new or existing air contamination source if the Division denies or revokes a permit to operate.

F. Applications:

Applications for permit to operate shall be prepared on appropriate application forms supplied by the Division and filed as outlined in IV.B.

G. Standards and Procedures for granting or denying Permit to Operate:

1. No permit to operate shall be granted unless the applicant shows to the satisfaction of the Division that the emissions of the air contamination source will satisfy the requirements of the emission control regulations of the Commission or any applicable national or local air pollution control ordinances and regulations and has been constructed, installed, or modified in accordance with the requirements and conditions contained in the authority to construct or modify.

2. After January 1, 1975 no existing air contamination source shall be granted a permit to operate unless the Division has determined to its satisfaction that said air contamination source will operate in such a manner so as not to significantly endanger maintenance or attainment as determined by the criteria set forth in IV.C.2 of any ambient air quality standards of the Commission, and any more stringent national or local ambient air quality standards.

3. Before a permit to operate is granted, the applicant, if required by the Division, shall conduct performance tests in accordance with methods approved by the Division with the tests being made at the expense of the applicant. The Division may monitor such required performance tests conducted by the applicant and may also conduct performance tests.

4. The Division may impose conditions upon the applicant in the permit to operate which require the owners or operators of air contamination sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

5. Prior to meeting the requirements of III.B and III.C. the Division may grant a temporary permit to operate to new or existing air contamination sources not to exceed six (6) months for the purpose of developing operational procedures, modifying equipment or facilities or to assess the impact of emissions to meet emission control regulations, ordinances and ambient air quality standards as determined by criteria set forth in IV.C.2.

H. Suspension or Revocation of Permit:

1. The Division may suspend or revoke a permit to operate if the requirements of Sections III and IV and any conditions specified in the permit to operate are not met on a continuous basis. Any order of the Division denying, suspending or revoking a permit to operate shall become final within ten (10) days from the receipt of the notice, unless the permittee shall have made a written application to the Commission for a hearing. The Commission may elect to refer the matter to the Variance Board for a decision as to whether the permit shall be granted, denied, or reinstated, or the operation be continued under the terms and conditions of a variance.

2. Whenever an air pollution emergency has been declared the permittee shall cease operating at such time after notice as shall have been stated in the permit to operate. Injunctive procedures may be instituted for failure to halt or curtail operation within the time specified in the permit. (66-31-11(1).

3. A permit to operate which has been revoked pursuant to these regulations shall be surrendered forthwith to the Division.

I. Renewal:

A permit to operate will be issued for a two-year period subject to renewal.

IV. COMMON PROVISIONS APPLICABLE TO BOTH AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE.

A. Exemptions:

An Air Contaminant Emission Notice, Authority to Construct, and Permit to Operate shall not be required for:

1. Structures used solely as residential dwellings and which do not exceed seven family units;

2. Retail and wholesale establishments where no processing or incineration occurs and where solid or liquid fuel is not burned;

3. Air conditioning or ventilating systems not designed to remove air contaminants generated by or released from equipment;

4. Fuel-burning equipment, other than smokehouse generators, which use gas as a fuel having a BTU input of not more than 500,000 BTU per hour;

5. Fireplaces used for inside or outside recreational purposes;

6. Fires used for non-commercial cooking of food for human beings;

7. The installation or alteration of an air contaminant detector, or air contaminant recorder.

8. Laboratory equipment used exclusively for chemical or physical analyses;

9. Flares used to indicate some danger to the public;

10. Normal agricultural cultivation operations.

11. Internal combustion engines are exempt except that emission notices and permit to operate are required for engines of greater than 1,000 horsepower.

12. Commercial laundries are only required to submit an air contaminant emission notice.

13. Other sources of minor significance as specified by the Commission.

B. Preparing and filing an application:

1. Separate applications are required for authority to construct or modify and permit to operate.

2. Applications shall be signed by the individual legally responsible and authorized to do so, and he thereby covenants that the applicant will either construct or modify the emission source in accordance with the requirements for granting applications as outlined in this regulation.

3. Prior to granting an authority to construct or permit to operate by the Division the applicant must submit, in triplicate, Form 200A entitled, "Air Contaminant Emission Notice."

4. Each application for authority to construct shall be accompanied by two copies of the complete data, siting (location) information, plans, descriptions, specifications and drawings sufficient in scope to allow an engineering evaluation to be made to determine whether appropriate air pollution control regulations, and ordinances and ambient air quality control standards will be met. For certain classes of equipment, special instruction forms are available which detail the information required. These forms can be identified as the Form 200B series.

5. Each application for permit to operate shall be accompanied by such performance tests results, information and records as may be required by the Division to determine whether the requirements of this regulation are met. Such information may also be required by the Division at any time when the source is being operated to determine compliance with applicable emission control regulations and ambient air quality standards.

C. Standards and Procedures for granting or denying applications:

1. Upon receipt and review of the application, but in no case later than twenty (20) days, the Division shall grant or deny, or request specific information from the applicant. Upon receipt of an application acceptable to the Division, within (20) days the Division shall either grant or deny permission to the applicant to construct, modify, or operate the new source.

2. If an authority to construct or permit to operate is granted the Division shall state, in writing, to the applicant and maintain a record of the maximum allowable emission levels the new or existing air contamination source must meet to comply with II.D. 1.(c), if II.D.1.(c) requires a more stringent degree of emission control than II.D.1.(a).

3. In the event of a denial of an application the Division shall not accept a further application unless the applicant has complied with the objections specified as reasons for denial.

4. Prior to the applicant being notified, in writing, of denial a conference between the Division and the applicant may be held to discuss the reasons for denial.

5. No authority to construct or permit to operate shall be granted to an applicant until the Division has determined to its satisfaction that acceptable halt or curtailment procedures which conform with the requirements of Section 66-31-11 of the Act have been submitted by the applicant. Such procedures shall state the times in which the applicant shall halt or curtail activities upon being notified of the declaration of an air pollution emergency.

Adopted : December 9, 1971
Effective: February 1, 1972

AMBIENT AIR STANDARDS FOR METROPOLITAN DENVER AIR QUALITY CONTROL REGION, AIR QUALITY CONTROL AREAS, AND THE STATE OF COLORADO

Colorado Air Pollution Control Commission

Adopted : September 10, 1970
Effective Date: December 17, 1970

AMBIENT AIR STANDARDS FOR
METROPOLITAN DENVER AIR QUALITY CONTROL REGION,
AIR QUALITY CONTROL AREAS, AND
THE STATE OF COLORADO

ADOPTED : September 10, 1970
EFFECTIVE: December 17, 1970

SUSPENDED PARTICULATE MATTER:

Areas of the State not included in Air Quality Control Areas

Achieve a Short Term Level of: A 24-hour maximum of 150 micrograms per cubic meter of air in any 24-hour period and must not be exceeded more than once in a twelve-month period.

Achieve a Long Term Level of: An annual arithmetic mean of all 24-hour concentrations which must not exceed 45 micrograms per cubic meter of air.

Air Quality Control Areas including the Metropolitan Denver Air Quality Control Region:

On or before January 1, 1973, achieve a Short Term Level of: A 24-hour maximum of 200 micrograms per cubic meter of air in any 24-hour period and must not be exceeded more than once in a twelve-month period.

On or before January 1, 1973, achieve a Long Term Level of: An annual arithmetic mean of all 24-hour concentrations which must not exceed 70 micrograms per cubic meter of air.

On or before January 1, 1976, achieve a Short Term Level of: A 24-hour maximum of 180 micrograms per cubic meter of air in any 24-hour period and must not be exceeded more than once in a twelve-month period.

On or before January 1, 1976, achieve a Long Term Level of: An annual arithmetic mean of all 24-hour concentrations which must not exceed 55 micrograms per cubic meter of air.

On or before January 1, 1980, achieve a Short Term Level of: A 24-hour maximum of 150 micrograms per cubic meter of air in any 24-hour period and must not be exceeded more than once in a twelve-month period.

On or before January 1, 1980, achieve a Long Term Level of: An annual arithmetic mean of all 24-hour concentrations which must not exceed 45 micrograms per cubic meter of air.

Method of Testing

Suspended particulate matter is measured gravimetrically using the high-volume sampler technique described by the National Air Pollution Control Administration. Suspended particulate numerical levels are expressed in micrograms per cubic meter of ambient air sampled.

SULFUR DIOXIDE

Areas of the State not included in Air Quality Control Areas

Achieve a Short Term Level of: A 24-hour maximum arithmetic mean of 15 micrograms per cubic meter in any 24-hour period and must not be exceeded more than once in a twelve-month period.

Air Quality Control Areas including the Metropolitan Denver Air Quality Control Region:

On or before January 1, 1973, achieve a One Hour Level of: A 1-hour maximum arithmetic mean of 800 micrograms per cubic meter of air in any 24-hour period, and must not be exceeded more than once in any 1-month period.

On or before January 1, 1973, achieve a Short Term Level of: A 24-hour maximum arithmetic mean of 300 micrograms per cubic meter of air in any 240hour period and must not be exceeded more than once in a 12-month period.

On or before January 1, 1973, achieve a Long Term Level of: An annual arithmetic mean of all 24-hour concentrations which must not exceed 60 micrograms per cubic meter of air.

On or before January 1, 1976, achieve a One Hour Level of: A 1-hour maximum arithmetic mean of 300 micrograms per cubic meter of air in any 24-hour period, and must not be exceeded more than once in any 1-month period.

On or before January 1, 1976, achieve a Short Term Level of: A 24-hour maximum arithmetic mean of 150 micrograms per cubic meter of air in any 24-hour period and must not be exceeded more than once in a 12-month period.

On or before January 1, 1976, achieve a Long Term Level of: An annual arithmetic mean of all 24-hour concentrations which must not exceed 25 micrograms per cubic meter of air.

On or before January 1, 1980, achieve a Short Term Level of: A 24-hour maximum arithmetic mean of 55 micrograms per cubic meter of air in any 24- hour period and must not be exceeded more than once in a 12-month period.

On or before January 1, 1980, achieve a Long Term Level of: An annual arithmetic mean of all 24-hour concentrations which must not exceed 10 micrograms per cubic meter of air.

Method of Testing

The method used to measure sulfur dioxide is the West-Gaeke method. Other methods may be used if they have been demonstrated to be equally or more specific, sensitive, and reproducible. Results are expressed as micrograms of sulfur dioxide per cubic meter of ambient air. These values may be converted to parts per million by volume by dividing by 2860. (1 ppm = 2860 ug/m_3 at 0°C and 760mm Hg (Torr.)).

ppm = parts per million
ug/m^3 = micrograms per cubic meter of air

TABLE I

AMBIENT AIR STANDARDS FOR
METROPOLITAN DENVER AIR QUALITY CONTROL REGION,
AIR QUALITY CONTROL AREAS, AND
THE STATE OF COLORADO

SUSPENDED PARTICULATE MATTER AND SULFUR DIOXIDE
(Micrograms per cubic meter - ug/m^3)

Pollutant	Non Designated Areas	Metro-Denver Air Quality Control Region, and Designated State Areas		
		1973	1976	1980
Suspended Particulate Matter[a] Short Term[c(i)]	150	200	180	150
Long Term[d]	45	70	55	45
Sulfur Dioxide[b] One hour Level[e]		800 (0.28)[f]	300 (0.10)[f]	
Short Term[c(ii)]	15 (0.0050)[f]	300 (0.10)[f]	150 (0.050)[f]	55 (0.020)[f]
Long Term[d]		60 (0.020)[f]	25 (0.0090)[f]	10 (0.0040)[f]

a. Measured at ambient conditions.
b. 0^{o} Centigrade - 760 mm Hg (Torr.)
c. Short Term Level
   (i) A 24-hour maximum of any 24-hour period and must not be exceeded more than once in a 12-month period.
   (ii) A 24-hour maximum arithmetic mean of any 24-hour period, and must not be exceeded more than once in a 12-month period.
d. Long Term Level - An annual arithmetic mean of all 24-hour concentrations.
e. One hour Level - A 1-hour maximum arithmetic mean in any 24-hour period, and must not be exceeded more than once in any 1-month period.
f. ( ) = Equivalent values in parts per million (1 ppm = 2860 ug/m^3 at $0^{o}C$ and 760 mm Hg (Torr)).

Price: $1.00